FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SAIB: AIR-21-19
SUBJ: AERIAL TOW EQUIPMENT, Side Pull Hook **Date:** November 29, 2021

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin alerts owners, operators, and maintenance personnel of an airworthiness concern on **MD Helicopters Inc. (MDHI) Model 369D, 369E, 369F, 369FF, 500N, and 600N** with Colorado Helicopters, Inc. Supplemental Type Certificate (STC) SH5230NM Side Pull Hook Assembly installed.

At this time, the airworthiness concern is not an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

The Federal Aviation Administration (FAA) became aware that the breakaway pin installed in the breakaway swivel of the side pull hook link installation could be replaced with the wrong pin or bolt prior to operations (See Figure 1 below). The hook link installation is certified for a maximum pull load of 1,900 pounds and is safeguarded by the calibrated breakaway pin connecting the two pieces of the swivel (The swivel is shown assembled in Figure 1). If the hook link installation is overloaded, the breakaway pin is designed to shear and allow the load line to fall away without upsetting the helicopter. Installation of other than the approved breakaway pin could result in helicopter damage, upset, and even loss of control if the maximum pull load of 1,900 pounds is exceeded. The swivel is installed in between the hook link assembly, which attaches to the helicopter, and the line attached to the load. The pin is approximately one inch long with one end painted **GREEN (not BLUE)** and fills the hole through the swivel. The pin has two smaller diameters allowing it to break in shear at a specified load. It does **NOT** contain any threaded features and does not protrude from the swivel. The pin is held in place with a steel retaining ring installed in a groove around the circumference of the swivel. Visual verification of the shear diameters and lack of threads is accomplished by removal of the steel ring and pin. If further verification is needed, a maintenance mechanic may measure the shear diameter (the smallest diameter of the pin in two places) to be .149 inch +.000/-.003 inches, not larger.

Recommendations

The FAA recommends that all pilots of the affected aircraft listed in the introduction of this SAIB inspect the breakaway pin for correct color code (**GREEN**) and general appearance (shear diameters present, no threads) immediately before any side pull operations. If the pin matches the description above and has no signs of damage, reinsert the pin and reinstall the retaining ring prior to flight. If the pin does not match the description above, or shows signs of damage, it should be replaced with pin part number 91106-018 prior to the next side pull operation.

The STC Design Approval Holder, Colorado Helicopters, Inc., further recommends that forward airspeed be limited to approximately 10 knots when utilizing the side pull hook. Higher airspeeds can

result in loads in excess of 1,900 pounds, nuisance breakaway pin failures, and hazards to persons on the ground when the load is unexpectedly released.

For Further Information Contact

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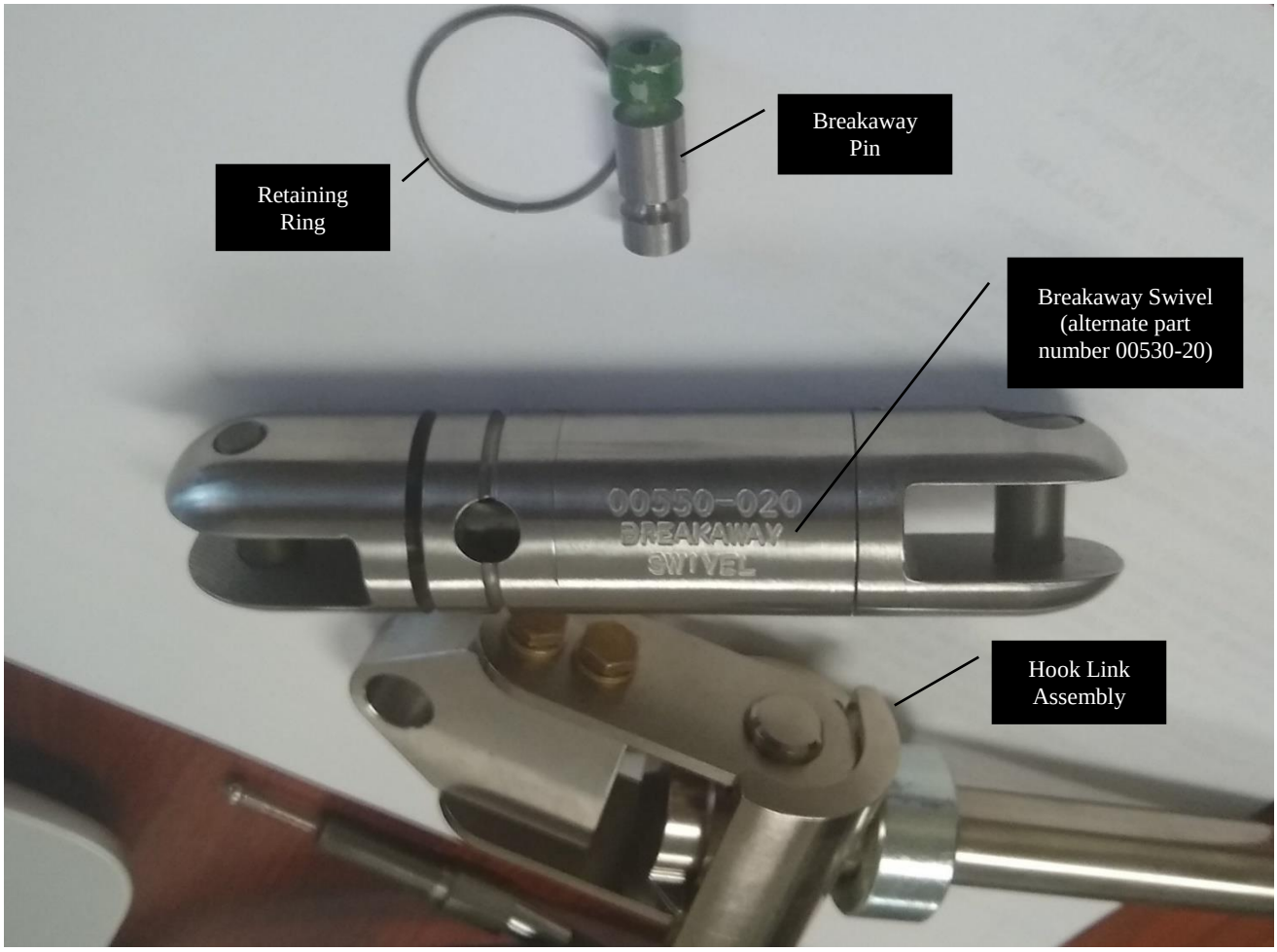

Figure 1